

Commonwealth of Massachusetts
Department of Telecommunications and Energy
Fitchburg Gas and Electric Light Company d/b/a Unitil
Docket No: D.T.E. 04-116
Department's Seventh Set of Document and Information Requests

Request No. DTE-LDC 7-1:

- (a) Assuming such data is available, please calculate your Company's SAIDI and SAIFI for the years 2001-2005, using the IEEE Standard 1366-2003.
- (b) Provide a graphical comparison of your SAIDI performance using the Department's current method contrasted against your SAIDI performance using IEEE 1366-2003 during that period.
- (c) Provide a graphical comparison of your SAIFI performance using the Department's current method contrasted against your SAIFI performance using IEEE 1366-2003 during that period.
- (d) Chart and specify the dollar amount of SAIDI and SAIFI penalties, if any, that you have incurred under the Guidelines and would have incurred under IEEE1366-2003.

Response:

Please see the following DTE-LDC 7-1(a) through (d) table and graphs.

In order to evaluate the exclusion of IEEE 1366-2003 major event days ("MED") and the resulting historical benchmark average, standard deviation, and annual performance, Fitchburg Gas and Electric Light Company d/b/a Unitil ("FG&E") followed the approach referred to in our earlier response to DTE 1-3. As noted in that response, data was only readily available back to 1992. Consequently, only four of the five years prescribed by IEEE 1366-2003 were available for determining the MED threshold (" T_{MED} ") to be applied in 1996, which is the first year of the five-year basis (1996, 1997, 1998, 1999, and 2000) for the SAIDI and SAIFI historic average and standard deviation benchmarking. To address this, FG&E took the approach of inferring the T_{MED} for 1996 both from the performance of only the four preceding years back to 1992 for which data was available, and on the minimum and maximum T_{MED} calculated using the strict IEEE method for the following nine years of 1997 through 2005. The same MEDs were identified for 1996 from each of these approaches. Therefore, the attached results use the full five-year basis (1996 through 2000, with the 1996 results inferred) for the SAIDI and SAIFI historic average and standard deviation benchmarking.

Regarding the dollar amount of SAIDI and SAIFI penalties, FG&E is not operating under a PBR Plan and is not presently subject to these penalties. However, in order to meet the Department's request, FG&E is providing a hypothetical estimation of the penalty calculations.

Person Responsible: Kevin Sprague

Date: April 21, 2006

Commonwealth of Massachusetts
Department of Telecommunications and Energy
Fitchburg Gas and Electric Light Company d/b/a Unitil
Docket No: D.T.E. 04-116
Department Staff's Seventh Set of Document and Information Requests
DTE-LDC 7-1(a)

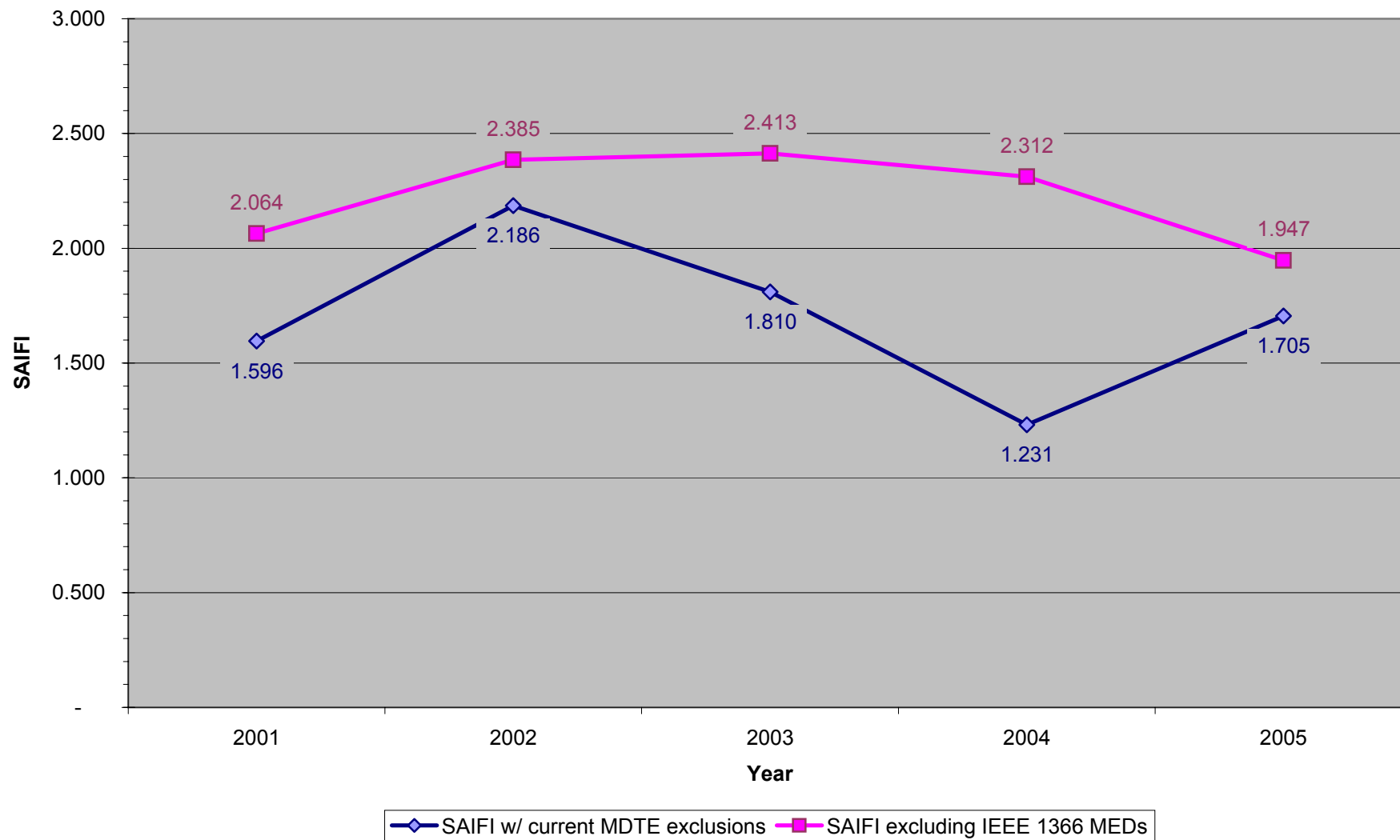
| Year | 2001 | 2002 | 2003 | 2004 | 2005 |
|--|--------|-----------|--------|--------|--------|
| w/ current MDTE exclusions method applied: | | | | | |
| SAIDI (minutes) | 140.34 | 191.37 | 141.64 | 106.53 | 120.66 |
| SAIFI | 1.596 | 2.186 | 1.810 | 1.231 | 1.705 |
| SAIDI (minutes) - Historic Average (1996-2000) | 131.54 | 131.54 | 131.54 | 131.54 | 131.54 |
| SAIDI (minutes) - Historic Standard Deviation (1996-2000) | 18.93 | 18.93 | 18.93 | 18.93 | 18.93 |
| SAIFI - Historic Average (1996-2000) | 1.677 | 1.677 | 1.677 | 1.677 | 1.677 |
| SAIFI - Historic Standard Deviation (1996-2000) | 0.307 | 0.307 | 0.307 | 0.307 | 0.307 |
| SAIDI - Applicable Revenue Penalty (hypothetical estimate) | \$ - | \$ 66,732 | \$ - | \$ - | \$ - |
| SAIFI - Applicable Revenue Penalty (hypothetical estimate) | \$ - | \$ 45,860 | \$ - | \$ - | \$ - |
| w/ exclusion of IEEE 1366-2003 Major Event Days: | | | | | |
| SAIDI (minutes) | 155.67 | 210.56 | 153.06 | 190.82 | 134.16 |
| SAIFI | 2.064 | 2.385 | 2.413 | 2.312 | 1.947 |
| SAIDI (minutes) - Historic Average (1996*-2000) | 173.21 | 173.21 | 173.21 | 173.21 | 173.21 |
| SAIDI (minutes) - Historic Standard Deviation (1996*-2000) | 25.42 | 25.42 | 25.42 | 25.42 | 25.42 |
| SAIFI - Historic Average (1996*-2000) | 2.271 | 2.271 | 2.271 | 2.271 | 2.271 |
| SAIFI - Historic Standard Deviation (1996*-2000) | 0.546 | 0.546 | 0.546 | 0.546 | 0.546 |
| SAIDI - Applicable Revenue Penalty (hypothetical estimate) | \$ - | \$ 36,017 | \$ - | \$ - | \$ - |
| SAIFI - Applicable Revenue Penalty (hypothetical estimate) | \$ - | \$ - | \$ - | \$ - | \$ - |

* - TMED for 1996 inferred

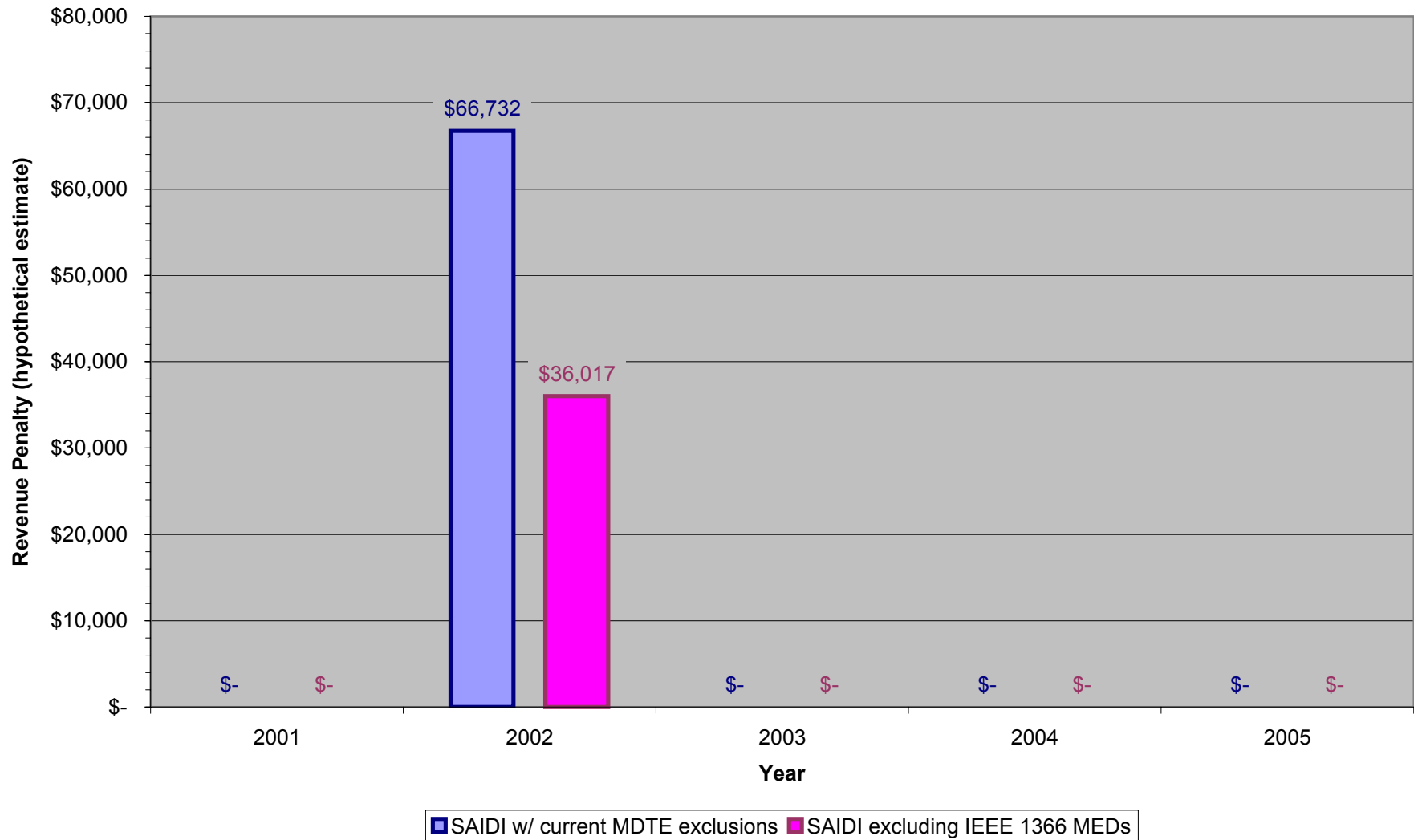
FG&E - SAIDI Performance Comparison
Current MDTE Exclusion Method vs. Exclusion of IEEE 1366-2003 Major Event Days



FG&E - SAIFI Performance Comparison
Current MDTE Exclusion Method vs. Exclusion of IEEE 1366-2003 Major Event Days



FG&E - Hypothetical SAIDI Penalty Comparison
Current MDTE Exclusion Method vs. Exclusion of IEEE 1366-2003 Major Event Days



FG&E - Hypothetical SAIFI Penalty Comparison
Current MDTE Exclusion Method vs. Exclusion of IEEE 1366-2003 Major Event Days

